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LOOK FOR THE DUTCH ELM DISEASE

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An appeal to State agencies, property owners and others throughout the elm-growing areas to cooperate by promptly forwarding specimens of wilting or dying elm trees to the Bureau of Entomology and Plant Quarantine for Dutch elm disease eradication.

The Federal appropriation during the present season is so limited that it appears necessary to confine the Federal assistance in scouting and eradication to the areas of known infection. Accordingly, it has been planned to use the available Federal funds to cooperate chiefly with the States of New Jersey, New York, and Connecticut to combat the disease where it is spreading from that area. Under this plan, the Department will use its funds chiefly for scouting and locating the diseased trees, while the States concerned will use their funds chiefly for the proper destruction of the diseased trees.

Up to the present time more than 4,000 diseased trees have been found. The latest report (July 25) in which the data are separated shows a total of 4,426 diseased trees in the infected area as follows: New Jersey, 3,405; New York, 992; and Connecticut, 29.

It is recognized that considerable scouting is required to determine if the disease is established in other points throughout the eastern half of the United States. It has been determined that both the disease and the probable insect vectors have been brought into this country on burl elm logs introduced for veneer cutting. Therefore, the points under greatest suspicion at this time are the port areas through which these logs were imported, areas along the railroad lines over which the logs were hauled to inland points, and areas about the veneer plants to which such logs were consigned.

For the present, the inspection work aimed at locating any unknown centers of infection will have to be cared for by the States concerned and such other agencies as are interested in the safety of the elms. The Department will maintain a Dutch elm disease laboratory at Morristown, New Jersey, and will undertake to examine at that point the suspicious material, either diseased elm bark and twigs or bark beetle specimens, sent in from various parts of the country. It is hoped that the State agencies and others interested will cooperate to the fullest extent in scouting and encouraging people throughout the elm-growing areas to send in suspicious material for examination.

Owing to the very important role that the European bark beetles may be playing in the spread of this disease, it is desirable that we obtain as much information as possible relative to the distribution of these insects. Both the disease and the insects may have been introduced into regions through the same medium.

Collecting and forwarding specimens:

Use the address "Dutch elm disease laboratory, U. S. Department of Agriculture, Morristown, New Jersey."

Diseased elm specimens:

Look for wilting and dying elms. Take several pieces from 1/4 to 1/2 inch thick and about 6 inches in length from the branches that show brownish discoloration in the present season's sapwood (the discoloration may be either continuous in the annual ring or stippled). Tie the samples together and wrap them securely in several thicknesses of strong paper for mailing.

Bark beetle specimens:

Look for evidence of the typical engravings between the bark and sapwood in dead and dying elms (in case of the European bark beetles, the egg galleries are generally parallel to the grain of the tree). Collect the mature beetles if found, and a complete engraving if possible. Kill the beetles in alcohol or formalin and place the material in a tight container (preferably strong cardboard, light wood, or metal) for mailing.

In all cases enclose or forward information giving the exact location where the samples were collected, together with as full a description as possible relative to the general conditions of the trees sampled and the extent of such conditions.

CEREAL DISEASES IN SOUTHWESTERN VIRGINIA

Wheat scab (Gibberella saubinetii) was very general throughout the State and was more severe than in past years. Stem rust (Puccinia graminis) severe in Wythe, Grayson, and Carroll Counties. The crop will be greatly reduced. Barberries are distributed generally in this section. Loose smut (Ustilago tritici) was very general this year. Glume blotch (Septoria nodorum) was more severe than usual.

Barley stripe (Helminthosporium gramineum). Very general and more severe than in an average year.

Bacterial blight of corn (Aplanobacter stewartii) has caused considerable damage, especially on the Golden Bantam variety. (S. A. Wingard and Paul R. Miller, July 19).

DISEASES OF WHEAT IN GALLATIN COUNTY, MONTANA

The percentage of wheat heads affected by stinking smut (Tilletia laevis) in fields inspected in Gallatin County is as follows:

70 acres, Marquis wheat; twice irrigated; untreated seed; 61.9 per cent of the heads were bunted.

600 acres, Marquis wheat; dry land; formaldehyde seed treatment, sprinkle and shovel method; 11.8 per cent of heads were bunted (range from 0 to 36 per cent).

600 acres, Turkey wheat; dry land; seed previously smutty; dip method of formaldehyde seed treatment; about 0.5 per cent.

40 acres of Crail (Jones) Fife wheat; 50 per cent.

80 acres, Turkey wheat; 32 per cent.

40 acres + 20 acres, Marquis wheat; 10 per cent.

40 acres, Marquis wheat; 5 per cent.

15 acres, Marquis wheat; 5 per cent.

Foot rot due to Helminthosporium and probably Fusarium destroyed the greater part of several large fields of wheat in Gallatin County during June and July. (P. A. Young, July 19).

OAT FIELD INSPECTIONS IN CAYUGA COUNTY, NEW YORK

The percentages of smut (Ustilago spp.) found in thirteen oat fields inspected in Cayuga County on July 13 are shown in the accompanying table.

Oat Field Inspections in Cayuga County, New York

Locality	Acres	Percentage of Smut Varieties	
		Swedish Select	Cornellian
Moravia	2	--	trace
Moravia	3	trace (untreated	--
Moravia	3	1.3	--
Moravia	4	1.2	--
Moravia	2	--	trace
Moravia	5	--	0
Sennett	25	--	0
Etna	4	11.3	--
Moravia	1	12.5	--
Moravia	5	--	trace
Moravia	2	3	--
Moravia	4	8	--
Moravia	5.5	--	5.0 (Second year seed was grown
Total acres and weighted averages of smut	65.5	5.26	trace

The maximum count of smut made in any one field was 21 per cent for 100 plants.

It was interesting to observe that Cornellian was susceptible to the bacterial leaf spot (Phytomonas coronafaciens) and that there was almost none on Swedish Select, even when grown near infected Cornellian. (Charles Chupp).

FRUIT DISEASES IN SOUTHWESTERN VIRGINIA

In general diseases of apple and peach have been less severe than usual, probably due to the fact that the weather conditions have permitted the use of better control practices.

Apple scab (Venturia inaequalis) has been about as severe as usual in unsprayed orchards and neglected home orchards. Apple rust (Gymnosporangium juniperi-virginianae) is general but less abundant than in the average year. Bitter rot (Glomerella cingulata) was doing a great deal of damage in 1,500 King David trees in Albemarle County where the spray had been poorly applied and the weather conditions were ideal for the development of this disease (hot and frequent rains).

Brown rot (Sclerotinia fructicola) was unusually severe on cherries. It was also noticeable in scattered amounts in early peaches. (S. A. Wingard and Paul R. Miller, July 19).

RHIZOCTONIA BATATICOLA CAUSING SORE SHIN OF TOBACCO IN KENTUCKY

The report of the occurrence of Rhizoctonia bataticola on tobacco in Kentucky is the first that the Survey has received of the organism on this host in this country. The report, by W. D. Valleau (July 26), is as follows:

In a field near Murray from 5 to 10 per cent of the plants are reported to be affected by sore shin in early to late stages of the disease. The early stage is evident by tip burning or tip wilting of the lower leaves. This is followed by their gradual death. As the midvein dies back to the stalk a large black leasion develops on the stalk around the leaf base. The pith decays ahead of the injury to the leaf and black or dark streaks can be seen in the cambium ahead of leaf wilting and pith decay. The organism is readily isolated from discolored parts. The cambium region and pith may be decayed before the blackening is evident on the outside of the stalk. Infection evidently occurred early, perhaps spread from a leaf into the pith and cambium and upward and downward inside the plant from that point.

Cultures have proved to be Rhizoctonia bataticola (Sclerotium bataticola). It is perhaps significant that the disease is occurring at this time of extremely high temperature.

BACTERIAL BLIGHT ON NATIVE HAZEL IN OREGON

Twig blight of Corylus californica (the native wild hazel of Oregon) due to a bacterial organism which is indistinguishable in culture from the pathogen causing the bacterial blight disease of the cultivated filbert, Corylus avellana, was found May 24, 1934, in the vicinity of Oregon City, Oregon. Pure cultures of the causal organism were isolated from typical

specimens and its pathogenicity on leaves of Corylus avellana demonstrated. It would appear from limited studies carried on by the writer that the wild hazel organism and the filbert blight pathogen are identical. As far as is known to the author, Corylus californica has never been definitely reported heretofore as a host of the bacterial blight pathogen, although it has long been suspected that the bacterial blight disease of the cultivated filbert originally came from the wild hazel. (P. W. Miller, July 16).

VARIOUS REPORTS ON PLANT DISEASES AND INJURIES

APPLE DISEASES IN KENTUCKY: The spring was dry in Kentucky for the most part, so much so that scab (Venturia inaequalis) infections are extremely rare on unsprayed apples, but more specimens of cedar rust (Gymnosporangium juniperi-virginianae) on apple leaves have been received than in any previous year. Grimes and Golden Delicious reported very susceptible, Starking reported immune. (W. D. Valleau, July 26).

FUSARIUM WILTS MORE PREVALENT THAN USUAL IN KENTUCKY: Reports of wilt diseases including tomato, sweet potato, tobacco have been more frequent this year than in the past perhaps due to hot weather in June. (W. D. Valleau, July 26).

SEVERE INFECTION OF TOMATO EARLY BLIGHT IN VIRGINIA: Early blight (Alternaria solani) attacked the plants in the beds and in many cases caused poor stands. Numerous cankers on the stems allowed the plants to break off during winds. In many cases the plants are 50 per cent defoliated. At present indications are that the crop will be reduced about one-half. (S. A. Wingard and Paul R. Miller, July 19).

HALO BLIGHT ON BEANS IN MONTANA: Thirteen acres of canning beans (variety Full Measure) in one field; more than half of plants infected with halo blight (Bacterium medicaginis phaseolicola); owner estimates loss at 50 per cent of crop. He said that many other fields west of the Gallatin River in this county are similarly affected. (P. A. Young, July 19).

NON-PARASITIC LEAF SCALD OF TOBACCO IN KENTUCKY: During the past two weeks White Burley tobacco has been reported from several parts of the State to be scalded badly. Usually occurs on rapidly growing tobacco a few days after a rain. Scalding occurs on about two or three leaves just below the growing point and follows wilting of these leaves on hot days. Temperatures during this time have usually been above 95°F. in the middle of the day. (W. D. Valleau, July 26).

HOLLYHOCK RUST IN MONTANA: Puccinia malvacearum is common and, in some cases, destructive in gardens in Bozeman; it also occurs in Yellowstone County and the northwestern part of the State. (P. A. Young, July).

WINTER INJURY IN VIRGINIA: Winter injury was severe and general and has apparently been gradually increasing in severity each year since 1930. Some of the plants which have been severely damaged are: boxwood, arborvitae, evergreen privet, abelia, honeysuckle, and roses. The sun scald type of injury has also been severe on cherries, peaches, and apples. (S. A. Wingard and Paul R. Miller, July 19).

ZOSTERA DISEASE ON THE SOUTHERN COAST OF IRELAND

According to Louis P. W. Renouf, of University College, Cork, the Zostera meadows along the coast of County Cork, Irish Free State, have been dying out, the trouble having spread very slowly since the summer of 1932 when it was first noticed. He reports that in most places recovery has been extremely rapid, although he was told that in one region there was no recovery but a simultaneous decrease in flatfish. Zostera marina, Z. nana, and the hybrid were equally affected and made equally rapid recoveries. All three occur together in one locality, Z. marina alone in the others. (Zostera disease on the coast of County Cork, I.F.S. Nature 133: 912. June 16, 1934. No. 3372).